

Survey on Social and Emotional Skills (SSES): Suzhou (People's Republic of China)



The OECD's Survey on Social and Emotional Skills

Research shows that both cognitive, and social and emotional skills improve life outcomes at a societal and an individual level. Considerable information exists on the development of cognitive skills but is lacking for social and emotional skills. The OECD's Survey on Social and Emotional Skills (SSES) was established to fill this important information gap.

The SSES aims to:

- Provide participating cities with information on their students' social and emotional skills.
- Identify factors in students' home, school and peer environments that promote or hinder the development of social and emotional skills.
- Explore how broader policy, cultural and socio-economic contexts influence these skills.
- Demonstrate that valid, reliable, comparable information on social and emotional skills can be produced across diverse populations and settings.

What are social and emotional skills?

Social and emotional skills are individual abilities, attributes and characteristics that are important for academic success, employability, active citizenship and well-being. They encompass behavioural dispositions, internal states, approaches to tasks, and management and control of behaviour and feelings. Beliefs about the self and the world that characterise an individual's relationships to others are also components of social and emotional skills.

Educators and policy makers are increasingly seeking to complement the focus on academic abilities such as mathematics, reading, or scientific literacy with attention to social and emotional capabilities in order to boost students' prospects as full participants in society and active citizens. Enhancing specific social and emotional skills boosts students' ability to develop their cognitive skills. But the benefits of developing children's social-emotional skills go beyond cognitive development and academic outcomes. They also improve mental health and other important life outcomes. Inconspicuous yet significantly impactful, social and emotional skills help shape individuals' behaviours and lifestyles, which, in turn, shape their socio-economic outcomes. Together, social, emotional and cognitive skills constitute a comprehensive toolbox, essential to students' success at school and beyond.

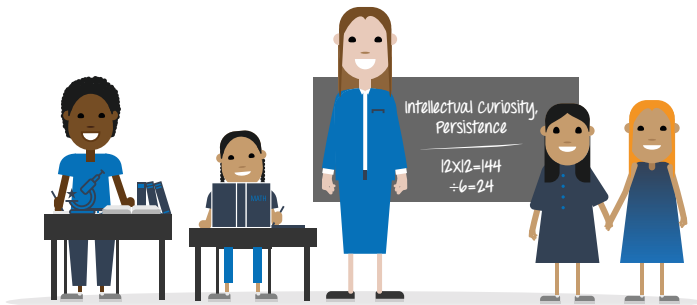
The OECD Survey on Social and Emotional Skills (SSES) focuses on 17 social and emotional skills ranging from curiosity and creativity through to emotional control (see Figure 1). These skills have been selected according to three main criteria. First, previous research shows that they are associated with individuals' educational attainment, labour market outcomes, health and well-being. Second, they can be improved through interventions and policy measures during the years a student spends in school. Third, they are suitable for comparability across countries and age cohorts.

Figure 1. Description of the skills included in the Survey of Social and Emotional Skills

DOMAINS	SKILLS	DESCRIPTION
OPEN-MINDEDNESS (Openness to experience)	CURIOSITY	Interest in ideas and love of learning, understanding and intellectual exploration; an inquisitive mind-set.
	TOLERANCE	Is open to different points of view, values diversity, is appreciative of foreign people and cultures.
	CREATIVITY	Generating novel ways to do or think about things through exploring, learning from failure, insight and vision.
TASK PERFORMANCE (Conscientiousness)	RESPONSIBILITY	Able to honour commitments, and be punctual and reliable.
	SELF-CONTROL	Able to avoid distractions and sudden impulses and focus attention on the current task in order to achieve personal goals.
	PERSISTENCE	Persevering in tasks and activities until they get done.
ENGAGING WITH OTHERS (Extraversion)	SOCIABILITY	Able to approach others, both friends and strangers, initiating and maintaining social connections.
	ASSERTIVENESS	Able to confidently voice opinions, needs, and feelings, and exert social influence.
	ENERGY	Approaching daily life with energy, excitement and spontaneity.
EMOTION REGULATION (Emotional stability)	STRESS RESISTANCE	Effectiveness in modulating anxiety and able to calmly solve problems (is relaxed, handles stress well).
	OPTIMISM	Positive and optimistic expectations for self and life in general.
	EMOTIONAL CONTROL	Effective strategies for regulating temper, anger and irritation in the face of frustrations.
COLLABORATION (Agreeableness)	EMPATHY	Understanding and caring for others and their well-being that leads to valuing and investing in close relationships.
	TRUST	Assuming that others generally have good intentions and forgiving those who have done wrong.
	CO-OPERATION	Living in harmony with others and valuing interconnectedness among all people.
ADDITIONAL INDICES	ACHIEVEMENT MOTIVATION	Setting high standards for oneself and working hard to meet them.
	SELF-EFFICACY	The strength of individuals' beliefs in their ability to execute tasks and achieve goals.

Source: Assessment Framework of the Survey on Social and Emotional Skills (Kankaraš and Suarez-Alvarez, 2019^[1])

HIGHLIGHTS FOR SUZHOU (PEOPLE'S REPUBLIC OF CHINA)



Intellectual curiosity and persistence are the social and emotional skills most strongly related to school performance for both 10- and 15-year-olds in reading, mathematics and the arts. In Suzhou, these skills seem to matter for mathematics more than for the other subjects.

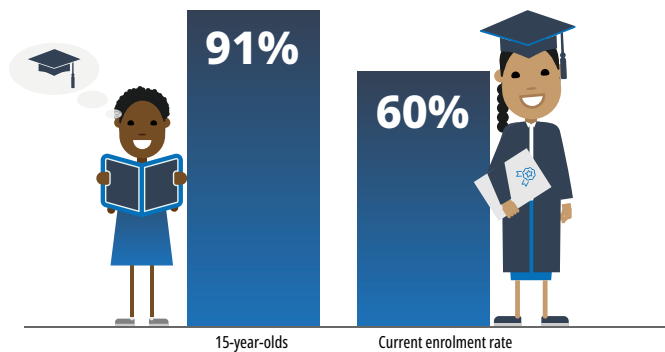
Overall, gender differences in 15-year-olds' social and emotional skills seem less pronounced in Suzhou, compared to the average across participating cities.



In Suzhou, as well as on average across participating cities, 15-year-old boys exhibit higher skills in the domains of emotional regulation (stress resistance, optimism and emotional control) and engaging with others (sociability, assertiveness, energy). Likewise, 15-year-old girls exhibit higher levels of responsibility, empathy and co-operation, tolerance and achievement motivation.

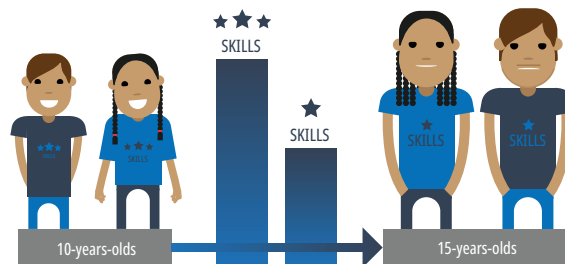


In Suzhou, socio-economic differences are generally slightly larger compared to the international average, especially for skills in the domains of task performance (responsibility, persistence and self-control) and emotional regulation (stress resistance, optimism and emotional control), self-efficacy and achievement motivation.

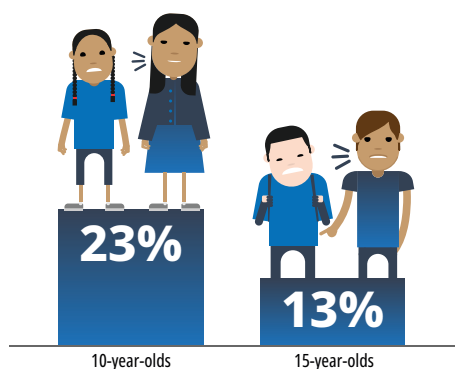


In Suzhou, 91% of 15-year-olds reported that they expected to go on to and complete a tertiary degree – higher than the current enrolment rate in higher education in Suzhou (60%). It is also the highest proportion observed across all participating cities.

In Suzhou, students tend to have higher educational expectations when they report higher levels of curiosity, self-control, tolerance and assertiveness



15-year-olds exhibit lower social and emotional skills than 10-year-olds, in Suzhou and on average across participating cities. In Suzhou, age-related differences in students' social and emotional skills are larger compared to other participating cities.



23% of 10-year-old students and 13% of 15-year-old students have experienced bullying at least a few times a month or more, which is low compared to rates observed in other participating cities. Students' exposure to bullying is negatively related to almost all social and emotional skills but particularly for skills in the domain of emotional regulation (stress resistance, optimism, emotional control).

Find more about the findings of the **Survey on Social and Emotional Skills** in the international report: OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>

The context of social and emotional learning in Suzhou (People’s Republic of China)

Suzhou (People’s Republic of China, henceforth referred to as “China”) is one of the ten cities that took part in the OECD Survey on Social and Emotional Skills (SSES) in 2019 (see Box 1 for demographic information about the city of Suzhou). Suzhou is a city in Jiangsu Province located in the east of China. Suzhou is one of the largest among the cities participating in SSES. Only Moscow (the Russian Federation) with about 12.7 million inhabitants and Istanbul (Turkey) with around 15.5 million inhabitants are more populous. In comparison to the diverse pool of cities participating in SSES, Suzhou is distinguished by the lowest level of unemployment (less than 2%). Suzhou invests a similar percentage of gross domestic product (GDP) on education as the OECD average, with an estimated 5% of the GDP spent on public and private schooling.

Since 2015, China has participated in one of the OECD’s international education surveys: the Programme for International Student Assessment (PISA). Jiangsu, the province in which Suzhou lies, is one of the four Chinese provinces that participated in PISA 2015 and 2018. Results from PISA 2015 and 2018 show that 15-year-olds in these four Chinese provinces were consistently among the top performers in reading, mathematics and science (OECD, 2019^[2]; OECD, 2016^[3]).

Past OECD surveys also provide key information on equity in education in a cross-country comparative fashion. In the four Chinese provinces, socio-economically advantaged students outperform disadvantaged students and socio-economic differences in performance are larger than in OECD countries (OECD, 2019^[4]; OECD, 2016^[3]). Girls significantly outperform boys in reading and boys outperform girls in science and mathematics, although to a lesser extent. The gender gap in reading in the four Chinese provinces is smaller than the average gender gap in the OECD, while the gender gap in the four Chinese provinces are larger than the average in mathematics and science (OECD, 2019^[4]). This suggests that boys perform relatively better than girls in all three domains in these provinces compared to the OECD average. In Suzhou as well as in China in general, a much smaller share of 25- to 34-year-olds (about 18%) are tertiary-educated than the OECD average (45%) (OECD, 2020^[5]).

Box 1. Key demographic information about Suzhou (China)

City: Suzhou

Location: City in Jiangsu Province located in the east of the People’s Republic of China

Population (2019): 10.7 million inhabitants

Average age (2019): 38

Enrolment rate of higher-education entrance examination (2019): 60%

Average unemployment level among adults aged 25-65 (2019): 1.8%

Source: Information provided by the city of Suzhou (China).

Little is known about students’ social and emotional skills and how these relate to their key outcomes despite the attention paid to these skills in China as well as in the city of Suzhou. Suzhou’s participation in SSES in 2019 helps fill this important information gap. Suzhou has a strong focus on social and emotional skills, and follows national measures to incorporate social and emotional learning in primary and secondary education. Suzhou’s main reasons for pursuing this are to improve educational outcomes and employment; decrease undesired behaviour such as bullying; and boost students’ well-being, health, resilience and flexibility to deal with change. Social and emotional learning also fits in with the goal of enhancing students’ national consciousness, sense of social responsibility, understanding and support of the national political system, and Chinese culture.

Social and emotional learning in primary and secondary education

The Chinese government has incorporated social and emotional learning into their education goals and curriculum for primary and secondary education. The education goals focus on students' key competencies and include emotional attitudes, values and skills to promote students' all-round development. Of particular importance are students' social responsibility, co-operation and creativity.

To promote the development of these skills, social and emotional skills are embedded in curriculum courses in both primary and secondary education. In primary education they are included in courses such as Morality and Rule of Law, Chinese, Science and English. Complementarily, social and emotional skills are also included in secondary education in courses such as Ideological and Political Education, Chinese, History, English, Physics, Chemistry and Physical Education (see Box 2 for a description of efforts to promote social and emotional skills in primary education).

In addition to the curriculum set out by the national government, Suzhou offers additional opportunities for students to develop their social and emotional skills. Suzhou offers courses in mental health to strengthen students' psychological health and promote all-round development and well-being. According to Suzhou, it lays the foundation for the health and development of not just students but their family life as well. It helps cultivate modern citizens who are healthy in body and mind, and have a sense of social responsibility, an innovative spirit and practical abilities.

As in other participating cities, there is no formal evaluation of students' social and emotional skills at the national level. However, the province of Suzhou has its own way of evaluating (part of) students' social and emotional skills. The evaluation uses what is called the "Sunshine index", which evaluates the development level of students' moral character. The cognitive aspects of morality are assessed via a test and the behavioural aspects by observing and recording students' daily performance in school and activities students participate in. Based on this information, students are evaluated on moral development and civic quality.

Box 2. Suzhou's efforts to promote social and emotional skills in school

In Suzhou (China), primary schools follow the Ministry of Education's basic curriculum standards focusing on the development of students' knowledge, skills, emotional attitudes and values. The objective of this curriculum is to enable students to solve problems practically and communicate efficiently through the development of accountability and innovative mindsets. Social and emotional skills are embedded in primary education through subjects such as Morality and Rule of Law, Chinese, Science and English. These courses aim to develop diverse skills including curiosity, co-operation, tolerance, sociability and persistence. Students in grades 1 and 2 take courses on morality and life while those in grades 3 to 6 study morality and society. These subjects target the social and emotional skills of achievement motivation, assertiveness, co-operation, curiosity, creativity, emotional control, empathy, optimism, persistence, responsibility, self-control, self-efficacy, sociability, stress resistance, tolerance and trust.

Source: Information provided by the city of Suzhou (China)

While this overview provides some context to examining findings from SSES for the city of Suzhou (China), no conclusion can be drawn from SSES as to how elements of this context influence social and emotional learning in Suzhou.

Social and emotional skills matter for academic success

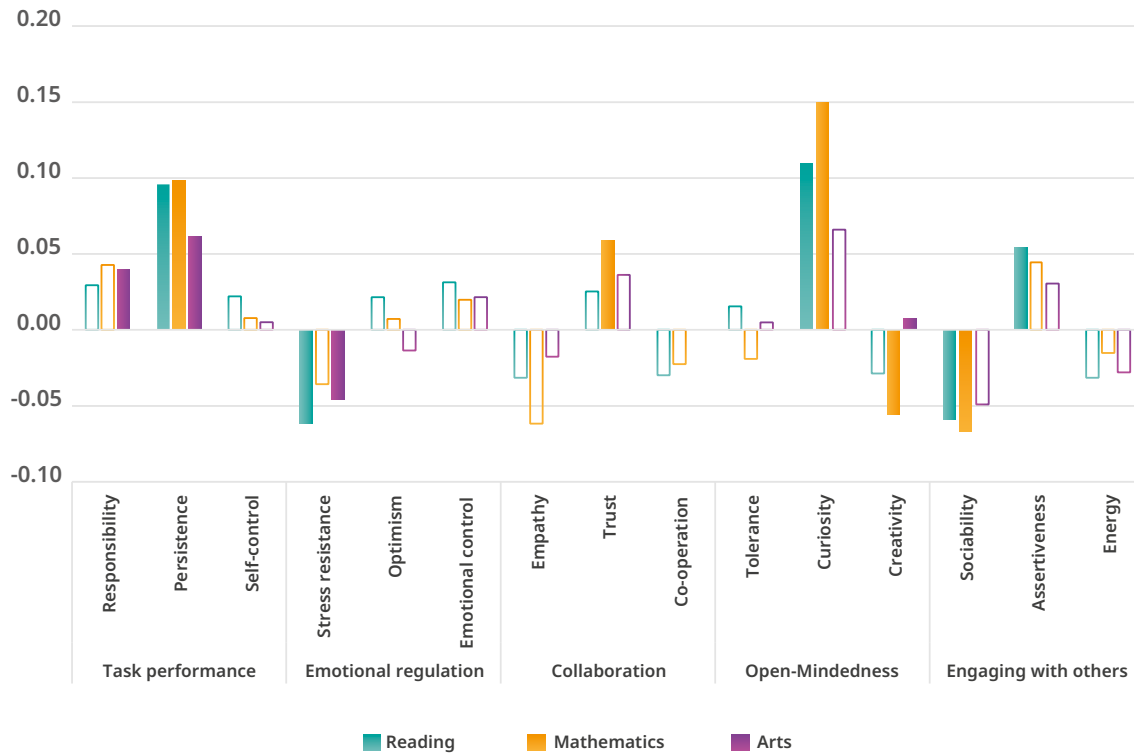
Students' school achievement is one of the main drivers of success in life. It is linked to later educational attainment but also to important life outcomes like employment, earnings, health and well-being. However, having the same academic performance in school does not always lead to the same life outcomes. One potential reason why some students are more likely to succeed than others is that they have developed specific social and emotional skills, which intervene in the equation.

In all participating cities but Ottawa (Canada), SSES collected information on students' school grades in three subjects: reading, mathematics and the arts along with the results of a short cognitive ability test administered to participating students. SSES data show that students' social and emotional skills are significant predictors of school grades (Figure 2 and Figure 3). The strengths of the associations between certain social and emotional skills and school grades are relatively weak but consistent across age cohorts and subjects and they remain after accounting for gender and socio-economic differences across students. In particular, being intellectually curious and persistent are the social and emotional skills most strongly related to school grades for both 10- and 15-year-olds in all three subjects. To a lesser extent, students who are more assertive and responsible also tend to have better school grades. These findings stress the importance of not only pursuing objectives in the face of difficulties but also having an intellectual curiosity about a diverse set of topics and loving to learn new things.

Fifteen-year-olds who reported being more stress-resistant (relaxed) and sociable have, on average, lower school grades (Figure 2). This does not mean that calmness in face of adversity (a benefit of being stress-resistant) and seeking support from peers are harmful to school achievement. Instead, this finding might be related to the fact that older students who typically have more autonomy than younger students may prioritise their social interactions at the expense of school work. Students who assess themselves as more stress-resistant might also be those who feel more remote from school and school demands. In fact, among the younger cohort, which is typically more supervised by parents and teachers, these relationships are not observed (Figure 3). In other words, younger students may have a less demanding school environment and are surrounded by adults who help them contain and channel their energy and desire to interact socially in ways that do not harm their school performance.

Figure 2. Average relationship between social and emotional skills, and school performance of 15-year-old students

Coefficients of (standardised) grades in reading, mathematics and the arts on (standardised) scores on social and emotional skills scales (international average)

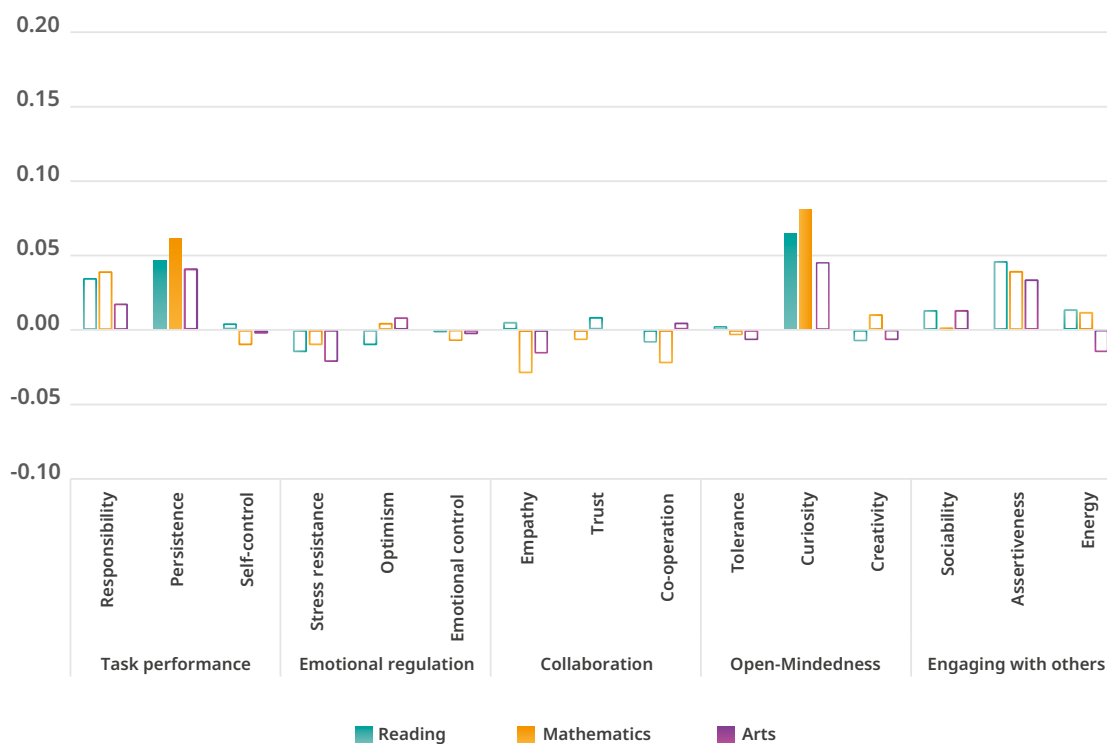


Note: Data for Sintra (Portugal) did not reach student response rate standards and are not included in international averages. The regressions are city-specific and control for gender, socio-economic status, and scores in the cognitive ability test, with the exception of Houston (United States), where the cognitive ability test was not administered. Ottawa (Canada) is excluded from the analysis of school grades as students' grades were not available. Coloured bars represent significant differences in at least five cities, bars that are only outlined represent significant differences in fewer than five cities.

Source: Adapted from OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>, Figure 2.1.

Figure 3. Average relationship between social and emotional skills, and school performance of 10-year-old students

Coefficients of (standardised) grades in reading, mathematics and the arts on (standardised) scores on social and emotional skills scales (international average)



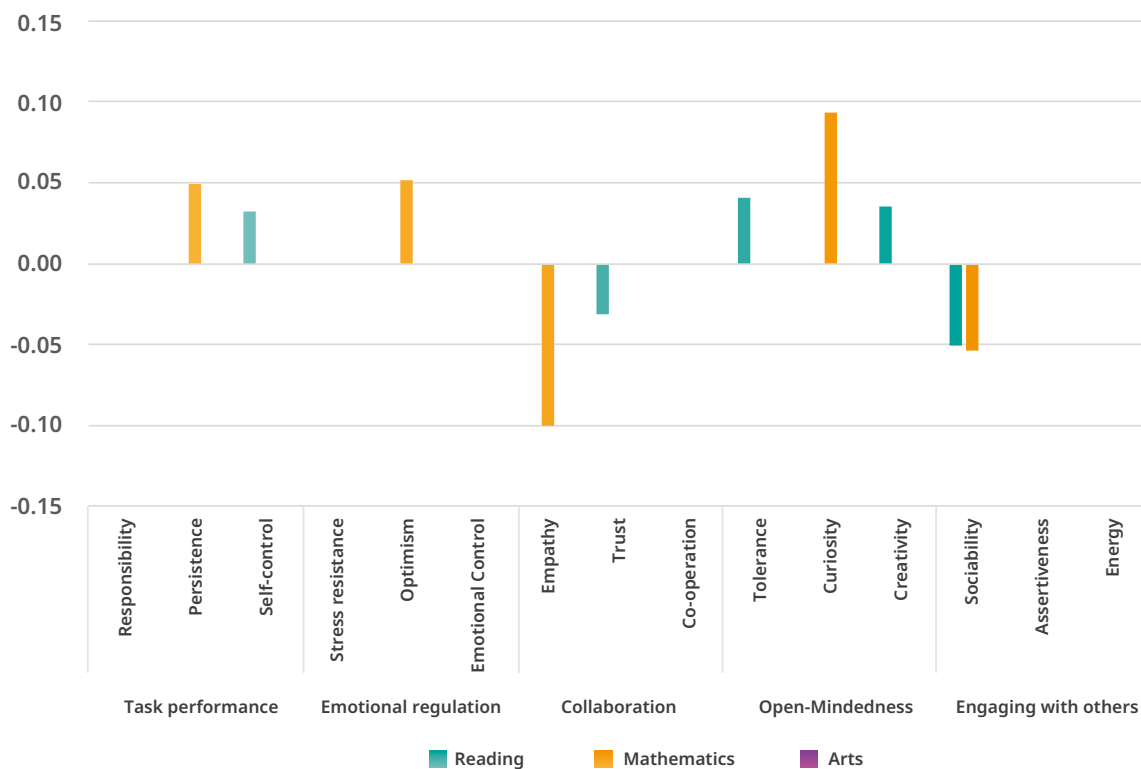
Note: Data for Sintra (Portugal) did not reach student response rate standards and are not included in international averages. The regressions are city-specific and control for gender, socio-economic status, and scores in the cognitive ability test, with the exception of Houston (United States), where the cognitive ability test was not administered. Ottawa (Canada) is excluded from the analysis of school grades as students' grades were not available. Coloured bars represent significant differences in at least five cities, bars that are only outlined represent significant differences in fewer than five cities.

Source: Adapted from OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>, Figure 2.2.

Figure 4 provides an overview of the social and emotional skills that are most strongly related to students' grades in all three subjects for the city of Suzhou (China). Different social and emotional skills appear important for reading and mathematics. Similar to the general trend observed in other participating cities, persistence and curiosity are associated with better grades in mathematics. Specific to Suzhou is the fact that students who are more optimistic also tend to have better grades in mathematics. These findings emphasise the importance of not only dedication in pursuing predetermined goals – even in the face of difficulties – but also cultivating an intellectual curiosity for a diverse range of topics. Students who are curious about a diverse set of topics and love learning new things are better equipped to face difficulties and are more likely to reach their goals. Different social and emotional skills are important for students' grades in reading – self-control, tolerance and creativity. Students who are more sociable tend to have lower grades in both mathematics and reading. Interestingly, only in Suzhou do no social and emotional skills appear related to 15-year-olds' grades in the arts. However, there are two skills that are positively related to 10-year-old students' grades in the arts: assertiveness and curiosity.

Figure 4. Skills most strongly associated with students' performance in Suzhou (China)

Coefficients of (standardised) grades in reading, mathematics and arts on (standardised) scores on social and emotional skills scales (international average)



Note: Coefficients from regressions of 15-year-olds' (standardised) grades in reading, mathematics and the arts on (standardised) scores on social and emotional skills scales. Each regression controls for gender, socio-economic status, and scores in the cognitive ability test. Only significant and lasso-selected relationships are reported.

Source: Adapted from OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>, Tables A2.1, A2.2, A2.3, A2.4, A2.5 and A2.6.

Social and emotional skills matter for future educational and occupational outcomes

Adolescence is a period when young people start to prepare for adult life. Teenagers have to make important decisions relevant to their future lives such as what field of study or type of education they will pursue and what job they will have. But young people often have a distorted perception of their cognitive, social and emotional strengths, which is influenced by their immediate environment more than by objective information; and they may lack sufficient knowledge about the breadth of educational opportunities and careers open to them. Importantly, past research has argued and shown that social and emotional skills are an integral component of individuals' employability, i.e. individuals' capability of getting and keeping fulfilling work (Pool and Sewell, 2007^[6]).

Education systems can play a crucial role in channelling these skills into the labour market, and helping young people develop a fair assessment of themselves and of their future educational opportunities. In doing so, they can ensure that students' skills, interests and aptitudes find a suitable match in the economy (Musset and Kurekova, 2018^[7]).

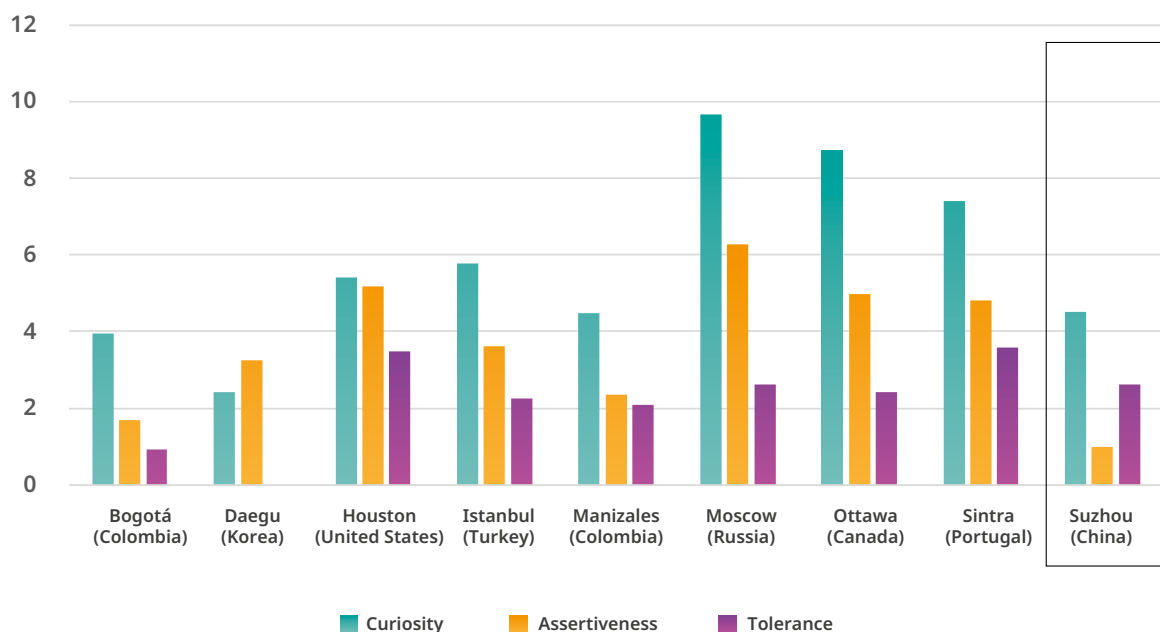
In Suzhou (China), 91% of 15-year-olds reported that they expected to go on and complete a tertiary degree – the highest proportion observed across the participating cities. This is slightly above that of Manizales (Colombia) at 88% and much higher than Sintra (Portugal) at 60% and Ottawa (Canada) at 65%. While this share is high in comparison to that of other cities participating in SSES, it is higher than the current enrolment rate in higher education in Suzhou (about 60%, see Box 1) and in China as a whole – a share that amounted to 18% in 2010 (OECD, 2020^[5]). This could suggest that 15-year-old students in Suzhou have high expectations. There may also be other factors that play into this high level of educational expectations such as the low cost of tertiary education and high returns from completion.

Across all SSES-participating cities with available data, the proportion of students who hold high expectations for further education is related to how they portrayed their own social and emotional skills. Among students of similar socio-economic background, differences in education expectations are often related to differences in social and emotional skills. In Suzhou (China), and in all participating cities, highly intellectually curious students tend to have higher educational expectations. Higher levels of assertiveness, tolerance and self-control are also, in Suzhou as well as in most cities, associated with expectations of completing higher education (Figure 5). At the same time, stress resistance, empathy and sociability are negatively related to educational expectations in Suzhou and a few other cities. (Figure 6). All these findings hold while accounting for other skill differences and for differences in gender and socio-economic status.

Why is curiosity strongly and consistently related to expectations for completing tertiary education? This likely reflects the fact that students with a great deal of curiosity and love of learning tend to have positive dispositions not only towards learning, in general, but also towards formal tertiary-education institutions; these students see tertiary institutions such as universities as places where their desire for knowledge can be satisfied. This indicates the importance of cultivating the affective dimensions that support academic performance – and not only behavioural tendencies such as persistence and self-control – in order to prepare students for lifelong learning.

Figure 5. How curiosity, assertiveness and tolerance relate to expectations of completing tertiary education

Percentage-point change in the likelihood that a 15-year-old student expects to complete a tertiary degree

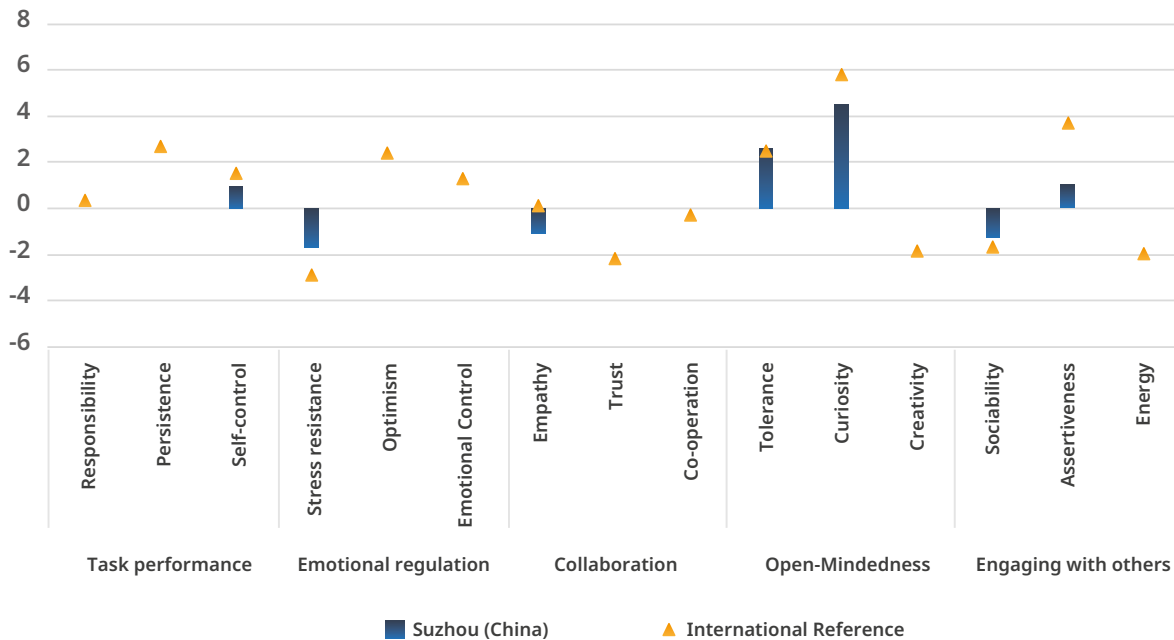


Note: The figure shows the percentage-point change in the likelihood that a 15-year-old student expects to complete a tertiary degree that is associated with a 100-point increase in the corresponding skill score. Only significant and lasso-selected relationships are reported. All models include controls for socio-economic status and gender. Data for Helsinki (Finland) are not available.

Source: Adapted from OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>, Table A2.7.

Figure 6. Skills most strongly associated with expectations of completing tertiary education in Suzhou (China)

Percentage-point change in the likelihood that a 15-year-old student expects to complete a tertiary degree



Note: The figure shows the percentage-point change in the likelihood that a 15-year-old student expects to complete a tertiary degree that is associated with a 100-point increase in the corresponding skill score. Only significant and lasso-selected relationships are reported. The international reference is the arithmetic average of the coefficients across the cities with significant and lasso-selected relationships only. All models include controls for socio-economic status and gender. Data for Helsinki (Finland) are not available.

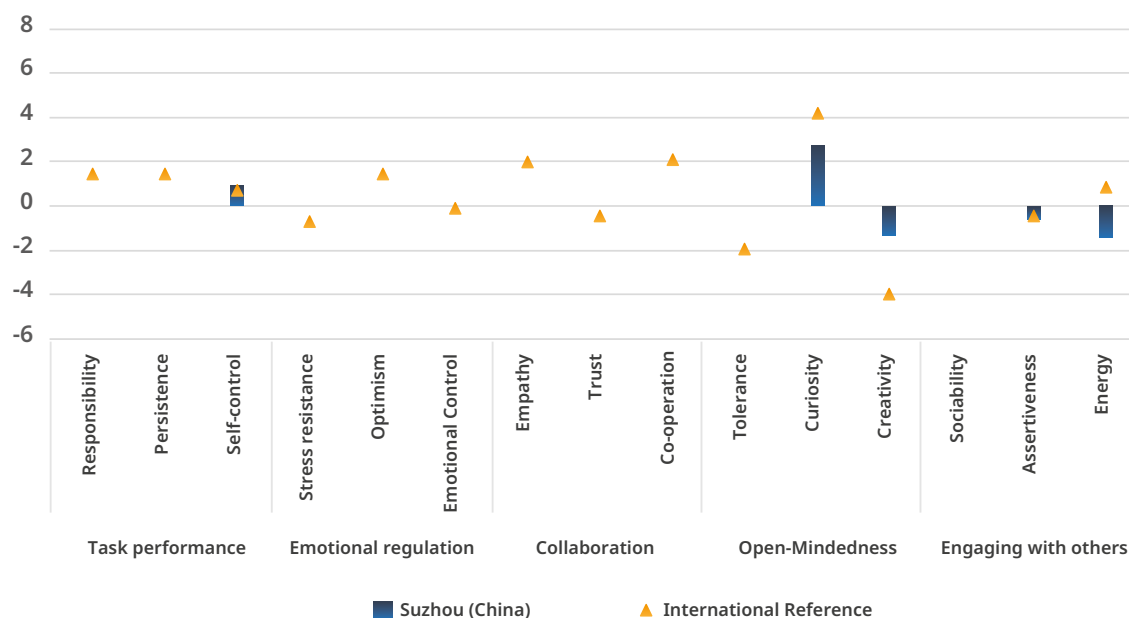
Source: Adapted from OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>, Table A2.7.

Similar to educational expectations, students' occupational expectations are related to specific patterns of social and emotional skills. First, the relations between social and emotional skills, and occupational expectations are much stronger among 15-year-olds than 10-year-olds. This might signal the interdependence of these two factors – students might develop job preferences adapted to their own cognitive, and social and emotional skills at the same time as they improve their skills to meet the requirements of their personal job aspirations.

Looking at 15-year-olds' job expectations, certain patterns of social and emotional skills emerge that are associated with aspirations to work in certain occupational groups. A few exemplar cases illustrate this. For example, in Suzhou (China), as well as in all other participating cities, 15-year-old students who reported aspiring to become health professionals (i.e. medical doctors, nursing and midwifery professionals) are also more curious than peers aspiring to other occupations (Figure 7). This is not surprising given that health occupations require curiosity in pursuing the sciences. In Suzhou and nearly all other cities, these students also represent themselves as less creative than other students. More specific to Suzhou is the fact that students aspiring to become health professionals have more self-control and reported being less energetic, and, to some extent, less assertive.

Figure 7. Skills most strongly associated with expectations of working as health professionals in Suzhou (China)

Percentage-point change in the likelihood that a 15-year-old student expects to become a health professional



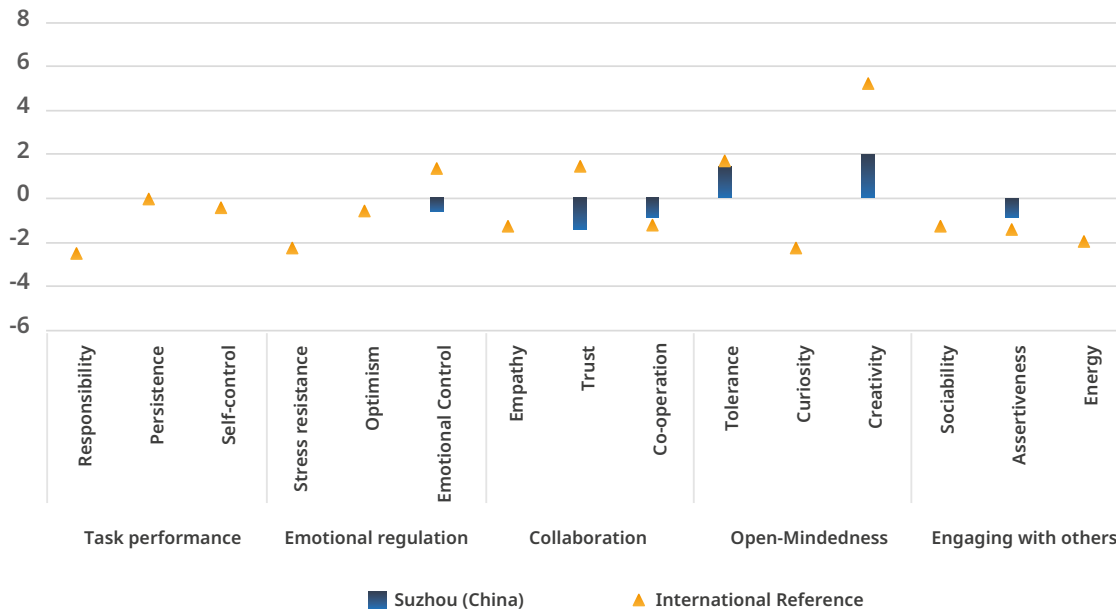
Note: The figure shows the percentage-point change in the likelihood that a 15-year-old student expects to become a health professional that is associated with a 100-point increase in the corresponding skill score. Only significant and lasso-selected relationships are reported. The international reference is the arithmetic average of the coefficients across the cities with significant and lasso-selected relationships only. All models include controls for socio-economic status and gender.

Source: Adapted from OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>, Table A2.8.

In all cities including Suzhou (China), students expecting to work in a creative occupation also represent themselves as more creative (Figure 8). Creative occupations include, for example, artists, musicians, actors but also marketing directors, professionals and associate professionals, architects, journalists, public relations officers, and software professionals. In Suzhou, students expecting a creative occupation tend to be more tolerant but less inclined to engage with others – they are less trusting, cooperative and assertive compared to other students.

Figure 8. Skills most strongly associated with expectations of working in a creative occupation in Suzhou (China)

Percentage-point change in the likelihood that a 15-year-old student expects to work in a creative occupation



Note: The figure shows the percentage-point change in the likelihood that a 15-year-old student expects to work in a creative occupation that is associated with a 100-point increase in the corresponding skill score. Only significant and lasso-selected relationships are reported. The international reference is the arithmetic average of the coefficients across the cities with significant and lasso-selected relationships only. All models include controls for socio-economic status and gender.

Source: Adapted from OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>, Table A4.20.

Social and emotional skills matter for well-being

Well-being is an important measure of quality of life alongside other social and economic dimensions (OECD, 2013^[8]). Adolescence is a period of rapid physical growth and brain development, increasing demands and expectations regarding school performance, changing relationships with parents and peers as well as increasing autonomy as students start to make their own decisions and develop behaviours that can influence their current and future well-being (Inchley et al., 2020^[9]; Patton, 2016^[10]). Education policies increasingly address student well-being as part of a whole-child perspective to education. This has led to increased emphasis on social and emotional skills alongside cognitive skills as drivers of future well-being.

The three aspects of students' psychological well-being measured in the SSES (life satisfaction, current psychological well-being and test anxiety) are strongly related to skills in the domain of emotional regulation: stress resistance, optimism and emotional control. All three aspects of students' psychological well-being are also only weakly related to skills in the domains of task performance and engaging with others.

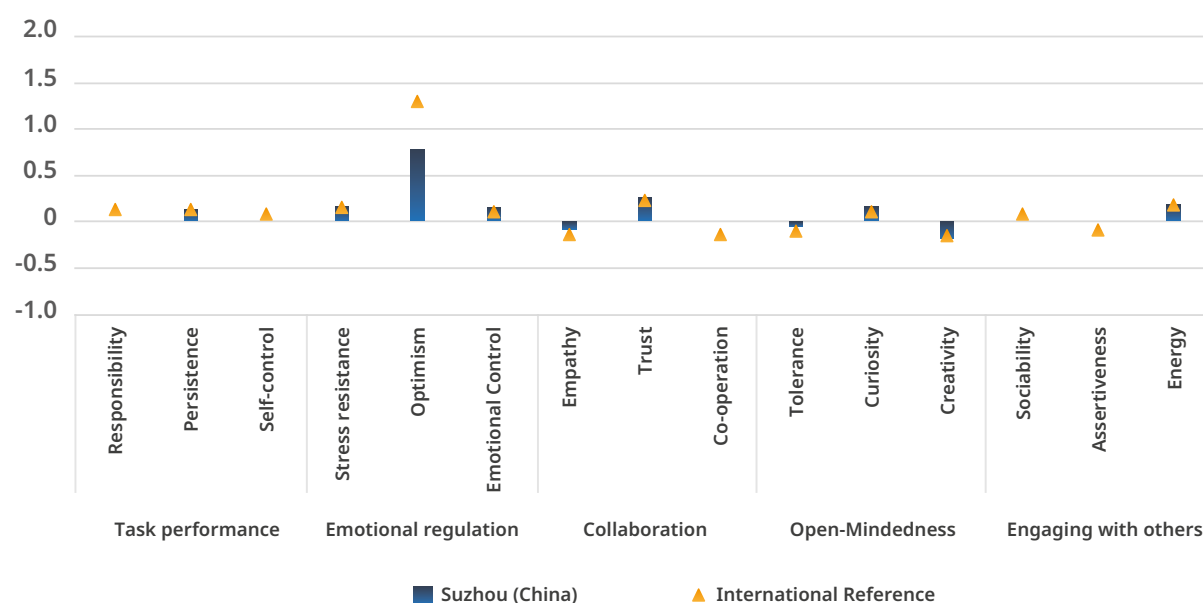
Life satisfaction

Students' life satisfaction is an evaluation that students make of their perceived quality of life according to their chosen criteria. This can be determined in part by the student's current mood and memory, and by the immediate context. In Suzhou (China) and in all other participating cities, 15-year-old students who are more optimistic also reported higher levels of life satisfaction (Figure 9). This also holds true for 10-year-old students. Students who are optimistic have a positive attitude and favourable outlook towards life. At the same time, students who have a more privileged life might be more optimistic. Most importantly, higher levels of optimism are inversely related to depressive disorders. Optimism confers resilience and coping skills in dealing with stressful events, and is related to factors such as socio-economic status and social integration, which generally have protective effects for both psychological and physical well-being (Carver, Scheier and Segerstrom, 2010^[11]).

Similar to other cities, in Suzhou (China), optimism stands out as being most strongly related to 15-year-old students' life satisfaction. Other social and emotional skills such as high levels of stress resistance, emotional control, trust, curiosity, and low levels of creativity are, to a lesser extent, related to 15-year-olds' life satisfaction. A similar pattern holds for 10-year-olds in Suzhou.

Figure 9. Skills most strongly associated with students' life satisfaction in Suzhou (China)

Change in 15-years-olds' life satisfaction associated with changes in social and emotional skills



Note: The figure shows coefficients from a regression of students' life satisfaction on (standardised) scores on social and emotional skill scales. Only significant and lasso-selected relationships are reported. The international reference is the arithmetic average of the coefficients across the cities with significant and lasso-selected relationships only. All models include controls for socio-economic status and gender.

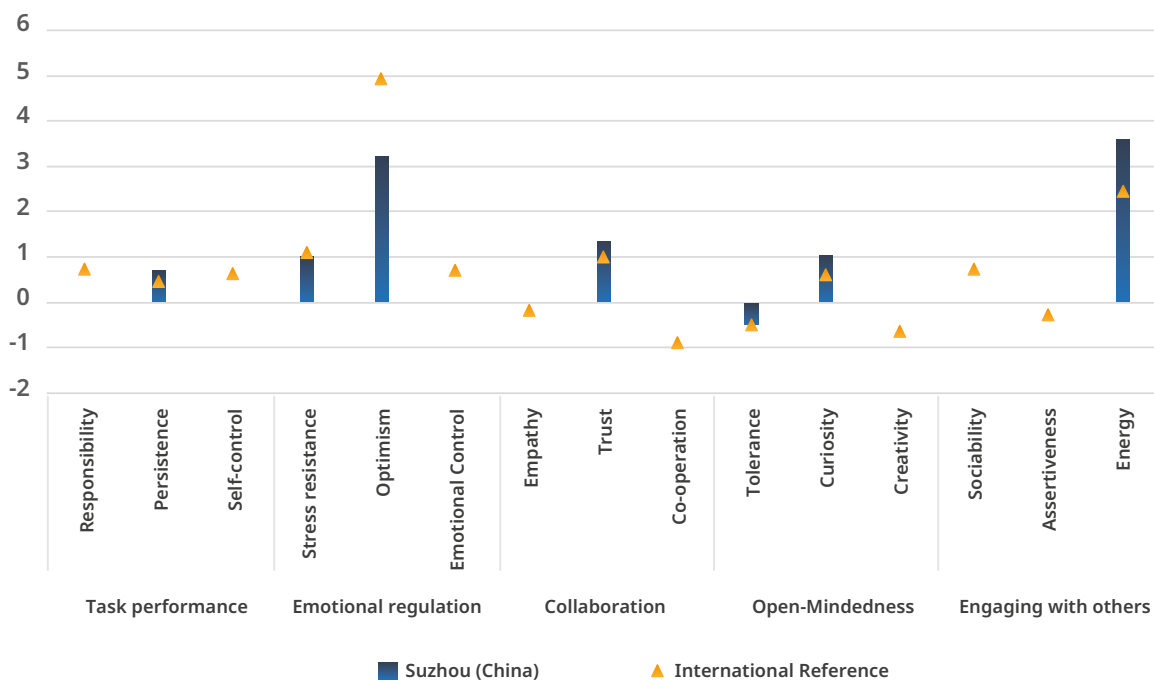
Source: Adapted from OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>, Table A3.18.

Current psychological well-being

Students' current psychological well-being is an evaluation of students' feelings and experiences during the two weeks prior to the survey. In Suzhou (China) and in all other participating cities, being optimistic is strongly related to one's current psychological well-being (Figure 10). This holds true for both cohorts of students. Students' level of energy also appears to be particularly related to their current psychological well-being in Suzhou compared to other cities. Other social and emotional skills that matter for both 10- and 15-year-olds students' current psychological well-being in Suzhou are students' trust of others, their ability to resist stress and their curiosity. Students who are more optimistic generally respond differently to challenging situations than students who are less optimistic. Optimists are more likely to experience less distress than pessimists when dealing with difficulties in their lives (Scheier, Carver and Bridges, 2004^[12]). This is not necessarily because optimists have unrealistic expectations (though that may sometimes be the case) but because they have more coping strategies to deal with challenging situations. Thinking that things will only get worse – even if true – may disengage someone from confronting a situation while thinking that things can improve – even if false – may motivate them to get the best out of a given situation.

Figure 10. Skills most strongly associated with students' current psychological well-being in Suzhou (China)

Change in 15-year-olds' current psychological well-being associated with changes in social and emotional skills



Note: The figure shows coefficients from regressions of students' current psychological well-being on (standardised) scores on social and emotional skill scales. Only significant and lasso-selected relationships are reported. The international reference is the arithmetic average of the coefficients across the cities with significant and lasso-selected relationships only. All models include controls for socio-economic status and gender.

Source: Adapted from OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>, Table A3.19.

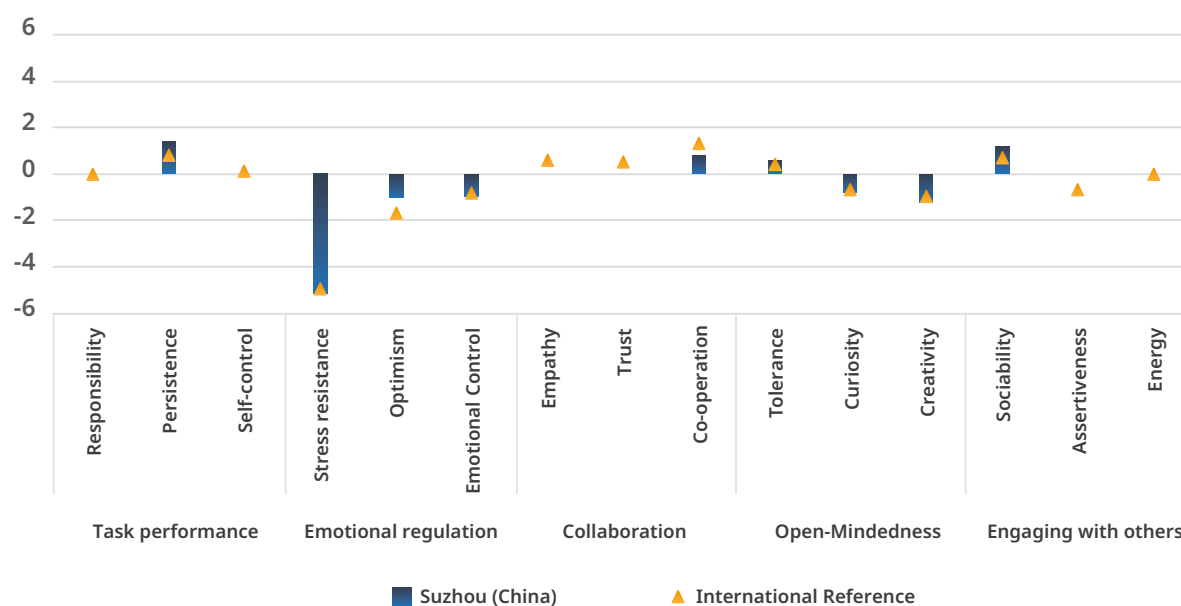
Test Anxiety

Test anxiety can be described as “the set of phenomenological, physiological, and behavioural responses that accompany concern about possible negative consequences or failure in an evaluative situation” (Zeidner, 2007^[13]). It typically arises in educational settings where students believe their abilities are stretched or exceeded by the demands of the test situation. In Suzhou (China) and in all participating cities with available data, students who indicated higher stress resistance reported a lower level of test anxiety. This holds true for students aged 10 and 15 while accounting for students’ grades in both mathematics and reading, which are typically correlated with a lower level of test anxiety (Figure 11). Among 10- and 15-year-olds, higher levels of optimism, creativity and emotional control are also related to lower levels of test anxiety in quite a few cities.

Similar to other cities, being stress resistant is most strongly associated with lower test anxiety in Suzhou. This holds for both 10- and 15-year-olds. Other skills that are related to lower test anxiety for 15-year-olds are skills in the domain of emotional regulation such as optimism and emotional control, but also curiosity and creativity. In Suzhou, as in other cities, students who reported being more persistent and sociable indicate higher levels of test anxiety.

Figure 11. Skills most strongly associated with test anxiety in Suzhou (China)

Change in 15-year-olds’ test anxiety associated with changes in social and emotional skills



Note: The figure shows coefficients from a regression of students’ test anxiety on (standardised) scores on social and emotional skill scales. Only significant and lasso-selected relationships are reported. The international reference is the arithmetic average of the coefficients across the cities with significant and lasso-selected relationships only. All models include controls for socio-economic status and gender.

Source: Adapted from OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>, Table A3.20.

Students' social and emotional skills are related to students' background characteristics...

SSES data and past research show that students' social and emotional skills are important for students' academic success, employment outcomes and well-being as well as for the prosperity of societies in general. The United Nations Sustainable Development Goals (SDGs) Target 4.7 advocates:

“ensuring that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development”.

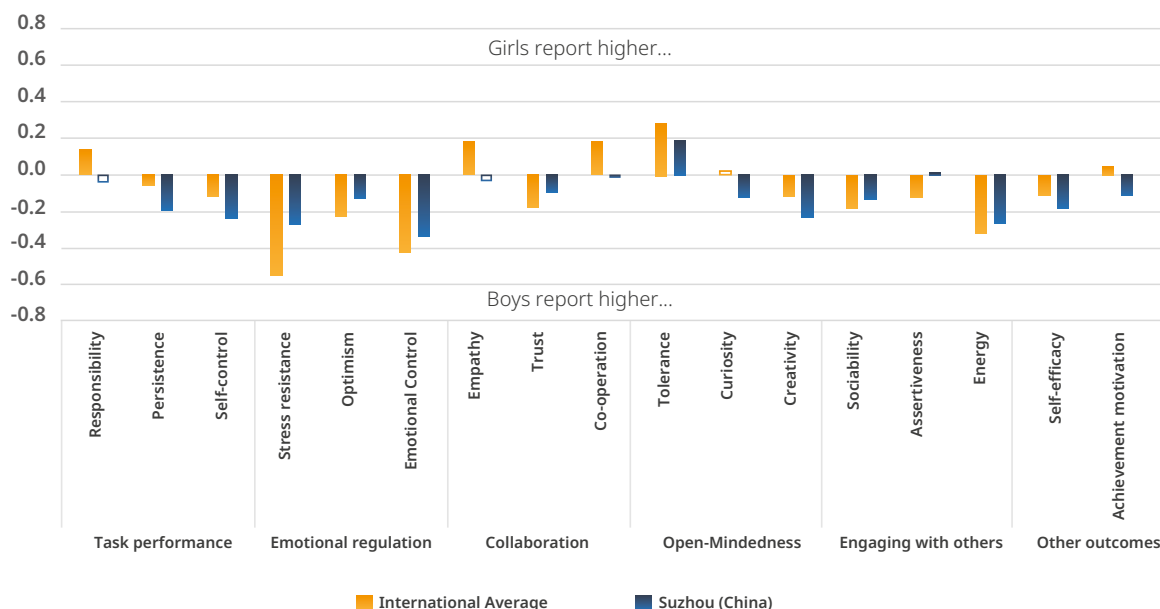
In this context, social and emotional skills such as co-operation, empathy and tolerance are key for citizens and societies to achieve these goals and secure the basis for functioning democracies. However, students with different background characteristics tend to possess different combinations of social and emotional skills.

In Suzhou (China) as well as on average across participating cities, 15-year-old boys exhibit higher skills in the domains of emotional regulation (stress resistance, optimism and emotional control) and engaging with others (sociability, assertiveness, energy). Likewise, 15-year-old girls exhibit higher levels of responsibility, empathy and co-operation, tolerance and achievement motivation. Overall, gender differences in 15-year-olds' social and emotional skills seem slightly less pronounced in Suzhou compared to the average across participating cities. They seem particularly smaller in skills in the domain of emotional regulation (stress resistance, optimism and emotional control), collaboration (empathy, trust and co-operation) and engaging with others (sociability, assertiveness and energy). In addition, both in Suzhou and on average across cities, gender differences in students' social and emotional skills seem to increase with age as they tend to be more pronounced among 15-year-olds than 10-year-olds (Figure 12).

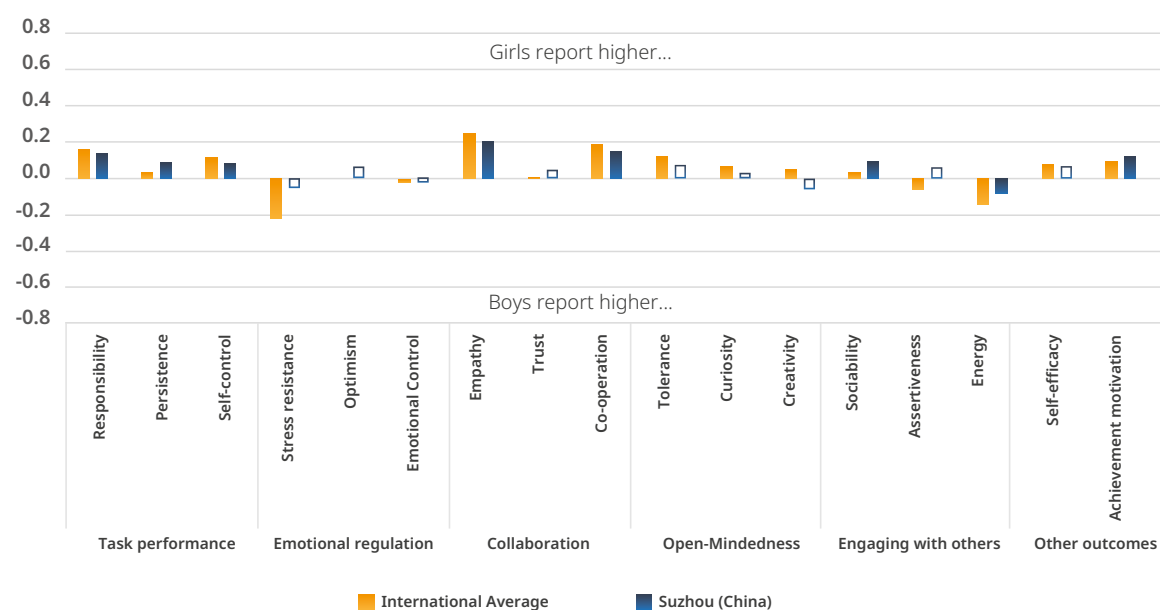
On average across participating cities, socio-economically advantaged students exhibit higher levels on every social and emotional skill measured by SSES. The difference in skills between students with low or high socio-economic status is especially pronounced in skills related to the domain of open-mindedness such as tolerance, curiosity, and creativity as well as empathy, assertiveness and self-efficacy. In Suzhou (China), socio-economic differences are similar in magnitude to the international average. Across both cohorts, socio-economic differences are slightly larger than on average across participating cities for only 4 out of the 17 social and emotional skills: responsibility, self-control, creativity and self-efficacy. In Suzhou and on average across cities, socio-economic differences in students' social and emotional skills tend to decrease between the ages of 10 and 15 (Figure 13).

Figure 12. Gender differences in social and emotional skills in Suzhou (China)

Standardised gender differences in skill scores (15-year-old girls – 15-year-old boys)



Standardised gender differences in skill scores (10-year-old girls – 10-year-old boys)

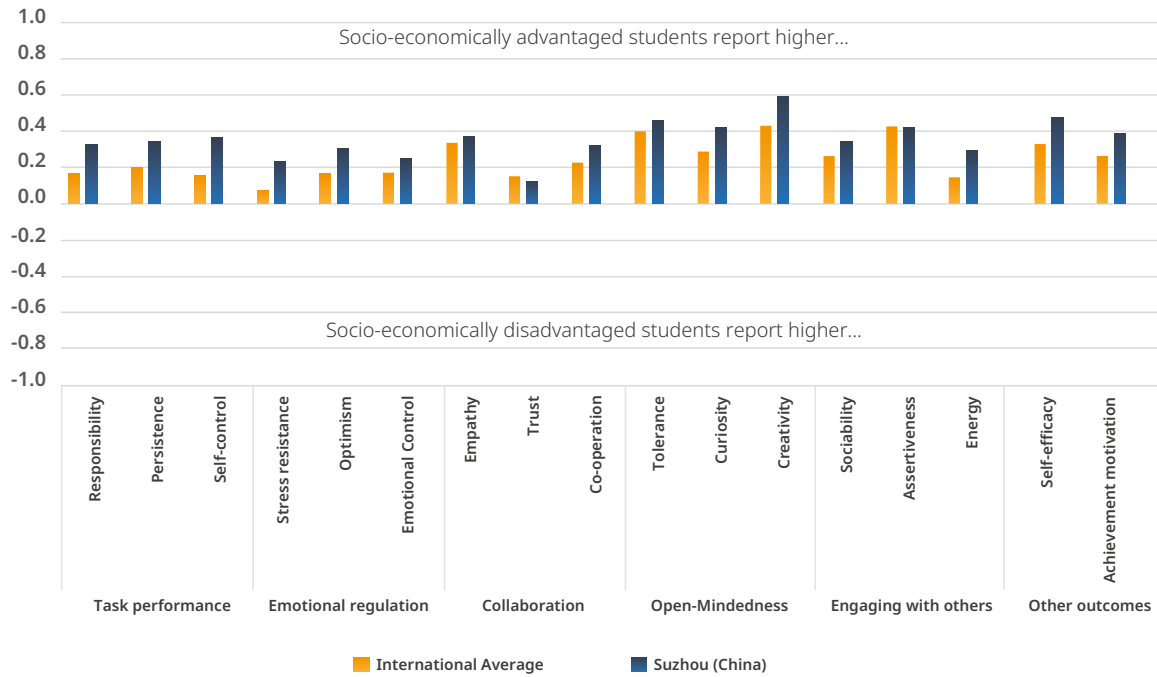


Note: Data for Sintra (Portugal) did not reach student response rate standards and are not included in international averages. The figures report standardised differences, whereby the raw scale points have been divided by the (city-specific) standard deviation. Significant differences are coloured, non-significant differences are outlined.

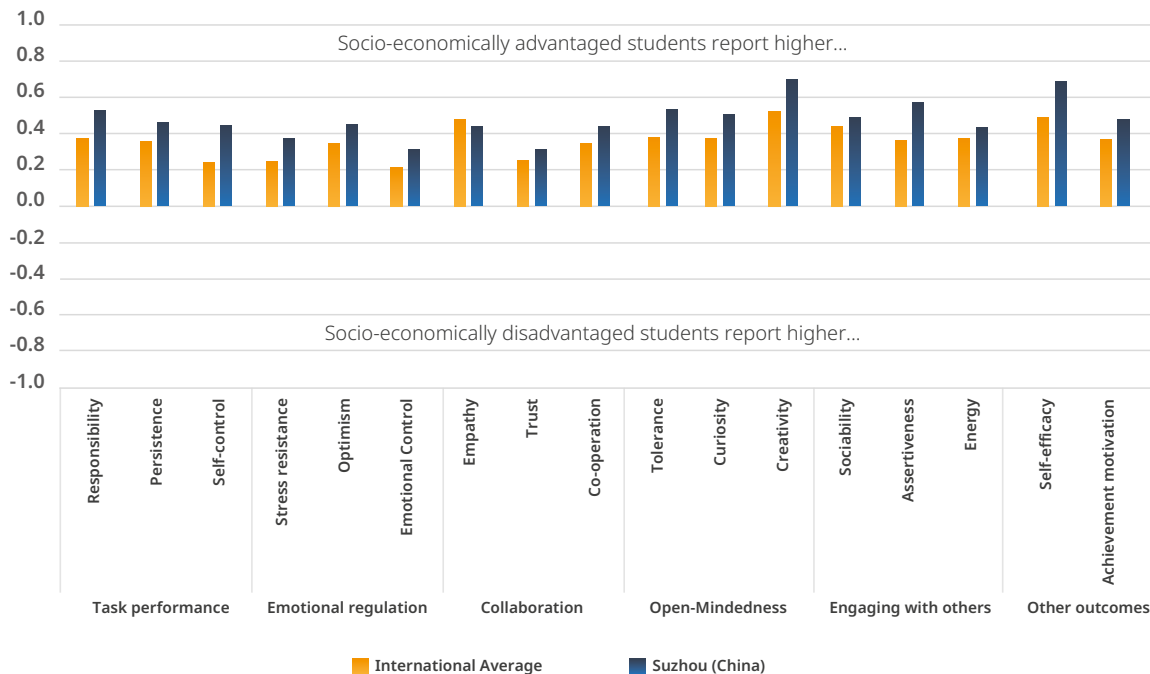
Source: Adapted from OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>, Tables A1.4, A1.5. and Figure 1.3.

Figure 13. Differences in social and emotional skills by socio-economic status in Suzhou (China)

Standardised differences in skill scores (high socio-economic status – low socio-economic status) among 15-year-olds



Standardised differences in skill scores (high socio-economic status – low socio-economic status) among 10-year-olds



Note: Data for Sintra (Portugal) did not reach student response rate standards and are not included in international averages. Socio-economically advantaged students are those in the top quarter of the site-specific distribution of the index of socio-economic status. Socio-economically disadvantaged students are in the bottom quarter of the site-specific distribution of the index of socio-economic status. The figures report standardised differences, whereby the raw scale points have been divided by the (city-specific) standard deviation. Significant differences are coloured, non-significant differences are outlined.

Source: Adapted from OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>, Figures 1.8. and 1.9.

...But students' social and emotional skills are malleable...

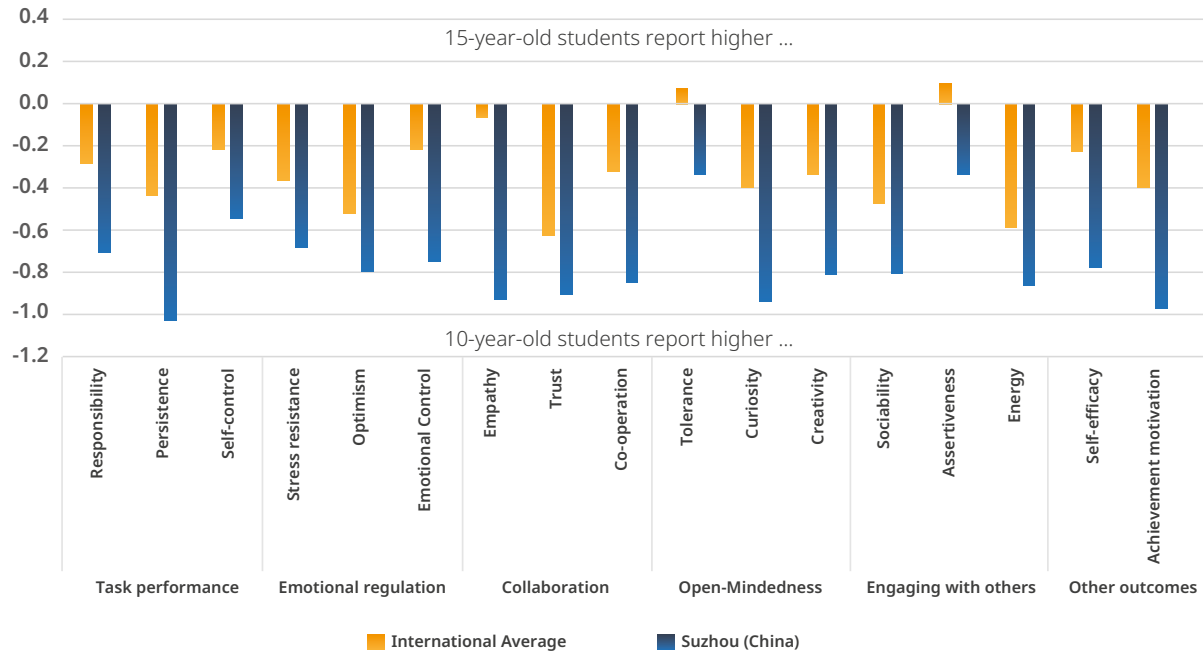
Inequalities in social and emotional skills among students are not set in stone. SSES data as well as previous research support the notion that social and emotional skills are characteristics and abilities that are malleable and change with biological and psychological maturation, environmental influences, individual effort and important life events (Specht et al., 2014^[14]; Kankaraš and Suarez-Alvarez, 2019^[1]; OECD, 2015^[15]; Roberts, Walton and Viechtbauer, 2006^[16]).

On average across participating cities, 15-year-olds exhibited lower levels than 10-year-olds for most of the social and emotional skills.¹ The differences are particularly pronounced when it comes to optimism, trust, energy and sociability but are smaller for empathy. Tolerance and assertiveness are the only two skills that are reportedly higher among 15-year-olds than 10-year-olds. On the one hand, this might be because teachers and schools are usually more effective at developing these skills. Instruction in citizenship and citizen rights may enhance tolerant attitudes among students. School assignments like oral presentations and written essays may encourage students to develop more assertiveness. On the other hand, the longer one spends in school with its fixed learning environments the more students' abilities to build and practise self-regulation skills, interpersonal skills and creativity and curiosity may become inhibited.

Overall, age-related differences in students' social and emotional skills in Suzhou (China) are substantially larger than the average across cities (Figure 14). The findings observed for Suzhou and all other participating cities might partly derive from the fact that education systems often expect compliance from students. This has the potential consequence of driving out social and emotional skills as students grow older and stay longer in the education system. Extended time in school and being exposed to fixed learning environments may inhibit student's abilities to build and practise some of these skills. Of note, the dip in students' social and emotional skills as students age is not uniform for all types of students. In particular, the decline is more acute for socio-economically advantaged students; in other words, less pronounced for socio-economically disadvantaged students.

Figure 14. Age differences in social and emotional skills in Suzhou (China)

Differences (15-year-olds – 10-year-olds) in social and emotional skills



Note: Data for Sintra (Portugal) did not reach student response rate standards and are not included in international averages. The figure reports standardised differences, whereby the raw scale points have been divided by the (city-specific) standard deviation. Significant differences are coloured, non-significant differences are outlined.

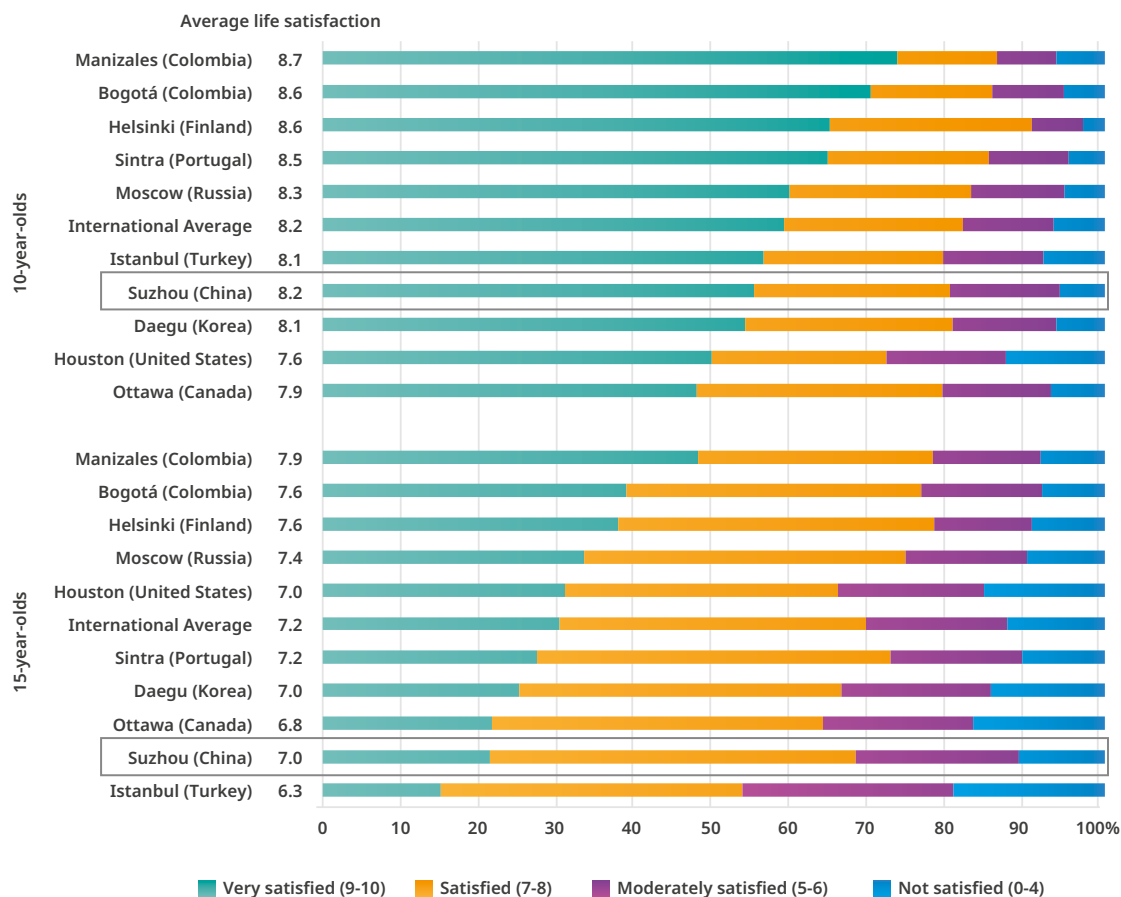
Source: Adapted from OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>, Figure 1.3.

Important age-related differences are also observed in other key outcomes examined in SSES. SSES data show that 10-year-old students enjoy higher levels of psychological well-being than 15-year-olds. Life satisfaction and current psychological well-being dip as students get older while test anxiety increases from childhood to adolescence. Figure 15 shows, for example, that the share of students who reported being very satisfied with their life declines in all participating cities. In Suzhou (China), this share goes from nearly 55% among 10-year-olds down to slightly more than 20% among 15-year-olds. This pattern is generally more pronounced among girls than boys.

¹ In the absence of longitudinal data, it cannot be ascertained the extent to which differences observed between age groups represent age or cohort effects. As there were no specific reasons to assume cohort effects and the findings were consistent across the participating cities, the former can be assumed.

Figure 15. Students' life satisfaction, by age cohort and city

Percentage of students, by level of life satisfaction



Note: Cities are ranked in descending order of the percentage of students who reported being very satisfied with their life. Data for Sintra (Portugal) did not reach student response rate standards.

Source: Adapted from OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>, Figure 3.1.

Students' educational and occupational expectations also change as they get older. In particular, older students embrace more diverse occupational expectations than their younger peers. On average across cities, 48% of 10-year-olds expect to work in one of the 10 most frequently reported occupations for their age cohort. This goes down to 37% for 15-year-old students. In addition, the relation between students' social and emotional skills, and their occupational expectations is much stronger for 15-year-olds than 10-year-olds. This suggests reciprocal influence between students' social and emotional skills, and their occupational aspirations.

... And students' social and emotional skills can be influenced by the school environment

The malleability of social and emotional skills enables them to be modified or developed for the better. Schools can play a particularly important role in providing learning environments where skills can be developed, enhanced and reinforced through practice and daily experiences. There are a number of studies that look at the effect of different school-based interventions to enhance students' social and emotional learning (Durlak et al., 2011^[17]; Park et al., 2008^[18]; Sklad et al., 2012^[19]; Smithers et al., 2018^[20]). A meta-analysis by Durlak et al. (2011^[17]) shows that social and emotional learning programmes had significant positive effects on targeted social and emotional skills, and attitudes about self, others and school. They increased pro-social behaviour, reduced behavioural problems and improved school performance. A more recent meta-analysis of quality research studies (comprising randomised experimental, quasi-experimental intervention studies and observational studies, controlling for relevant confounding factors) by Smithers et al. (2018^[20]) found that interventions aiming to improve social and emotional skills had more obvious positive effects on academic achievement outcomes than on psychological, cognitive, language and health outcomes. These findings suggest that people are not born with a fixed set of social and emotional skills. Instead, there is considerable potential in developing these skills throughout people's lives (Helson et al., 2002^[21]; Srivastava et al., 2003^[22]). Studies linking data on teachers and students show that teachers have an impact on students' social and emotional skills. Teachers' interactions with students, classroom organisation, and emphasis on critical thinking in specific subjects were found to support students' development in areas beyond their core academic skills (Blazar and Kraft, 2017^[23]).

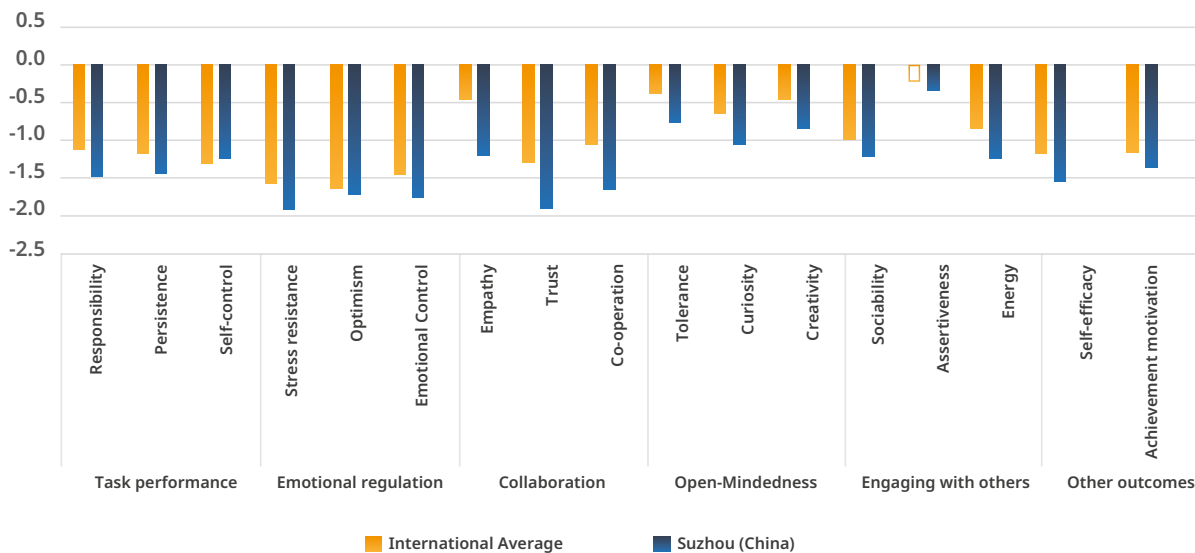
SSES data shed light on teachers' and schools' roles in shaping students' social and emotional skills. A first illustration of this is that students with a greater sense of school belonging and better relations with teachers reported higher social and emotional skills. This holds true for Suzhou (China) and for all other participating cities. Fitting in at school is most strongly related to higher co-operation, optimism and sociability. At the same time, students who reported having positive relations with their teachers also view themselves as more optimistic, curious and achievement-focused. These findings suggest that schools that are able to provide a positive disciplinary climate, offer support from teachers and engage with parents in building a positive school culture can help students develop their social and emotional skills. Indeed, all these factors are positively associated with students' sense of belonging at school by other research studies (Allen et al., 2018^[24]; Crouch, Keys and McMahon, 2014^[25]; Dotterer, McHale and Crouter, 2007^[26]; Ma, 2003^[27]; OECD, 2017^[28]; Shochet, Smyth and Homel, 2007^[29]).

Secondly, school climate and anti-bullying policies can be instrumental to students' positive social and emotional development. Bullying at school can affect any schoolchild in any country (Nansel et al., 2004^[30]). This violent behaviour can have severe long-term physical, social and emotional consequences for students. Teachers, parents, policy makers and the media are increasingly drawing attention to bullying and trying to find ways to tackle it (Phillips, 2007^[31]). A Korean study established that being bullied in middle school causes the onset of symptoms of psychopathologic behaviours to resurface later (Kim, Leventhal and Koh, 2006^[32]). Yet, research suggests that a supportive and caring school environment is linked to less bullying and, conversely, students' willingness to seek help (Låftman, Östberg and Modin, 2017^[33]; Ma, 2002^[34]; Olweus, 2012^[35]). In schools where students perceive greater fairness; feel they fit in at school; work in a more disciplined, structured and cooperative environment; and have understanding teachers, students are less likely to engage in risky and violent behaviour (Gottfredson et al., 2005^[36]; Kuperminc, Leadbeater and Blatt, 2001^[37]).

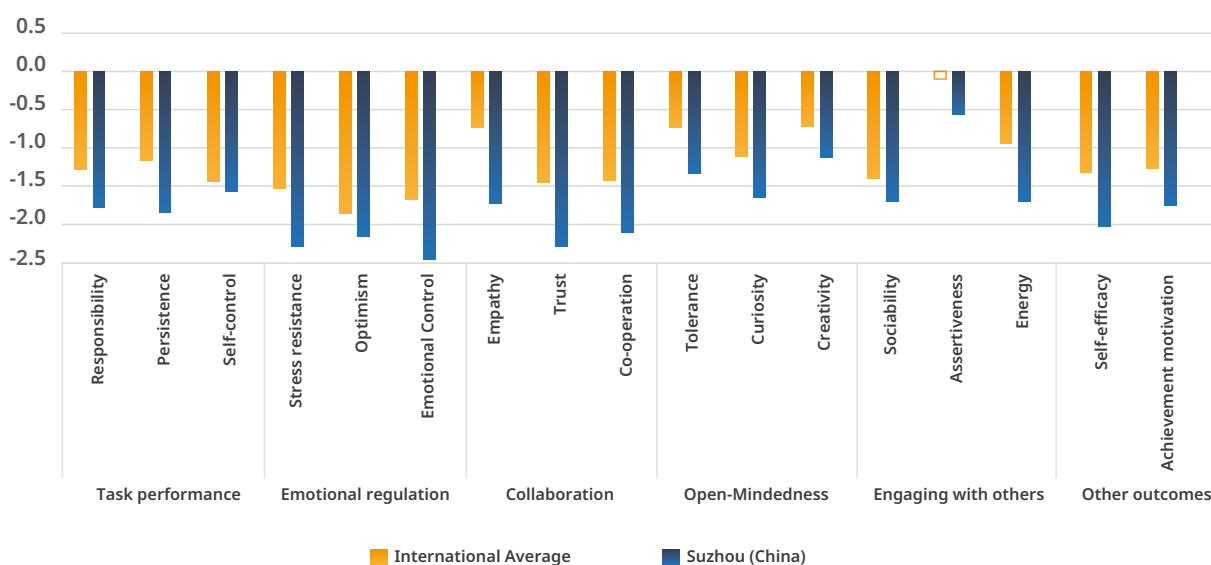
SSES data show that students' exposure to bullying is negatively related to almost all social and emotional skills. In Suzhou (China), as well as on average across participating cities, 10-year-old and 15-year-old students' exposure to bullying is most strongly related to lower skills in the domains of emotional regulation. Students who reported greater exposure to bullying tended to report lower levels of optimism, emotional control, stress resistance, and trust in other people (Figure 16). These findings need to be interpreted in light of the share of students who experience bullying. In Suzhou, 23% of 10-year-old students and 13% of 15-year-old students experienced bullying at least a few times a month or more during the 12 months prior to the 2019 survey. While these shares are not negligible, they are smaller than in almost all other participating cities.

Figure 16. Relations between students' exposure to bullying, and social and emotional skills in Suzhou (China)

Change in 15-year-olds' social and emotional skills related to a one-standard deviation increase in exposure to bullying



Change in 10-year-olds' social and emotional skills related to a one-standard deviation increase in exposure to bullying

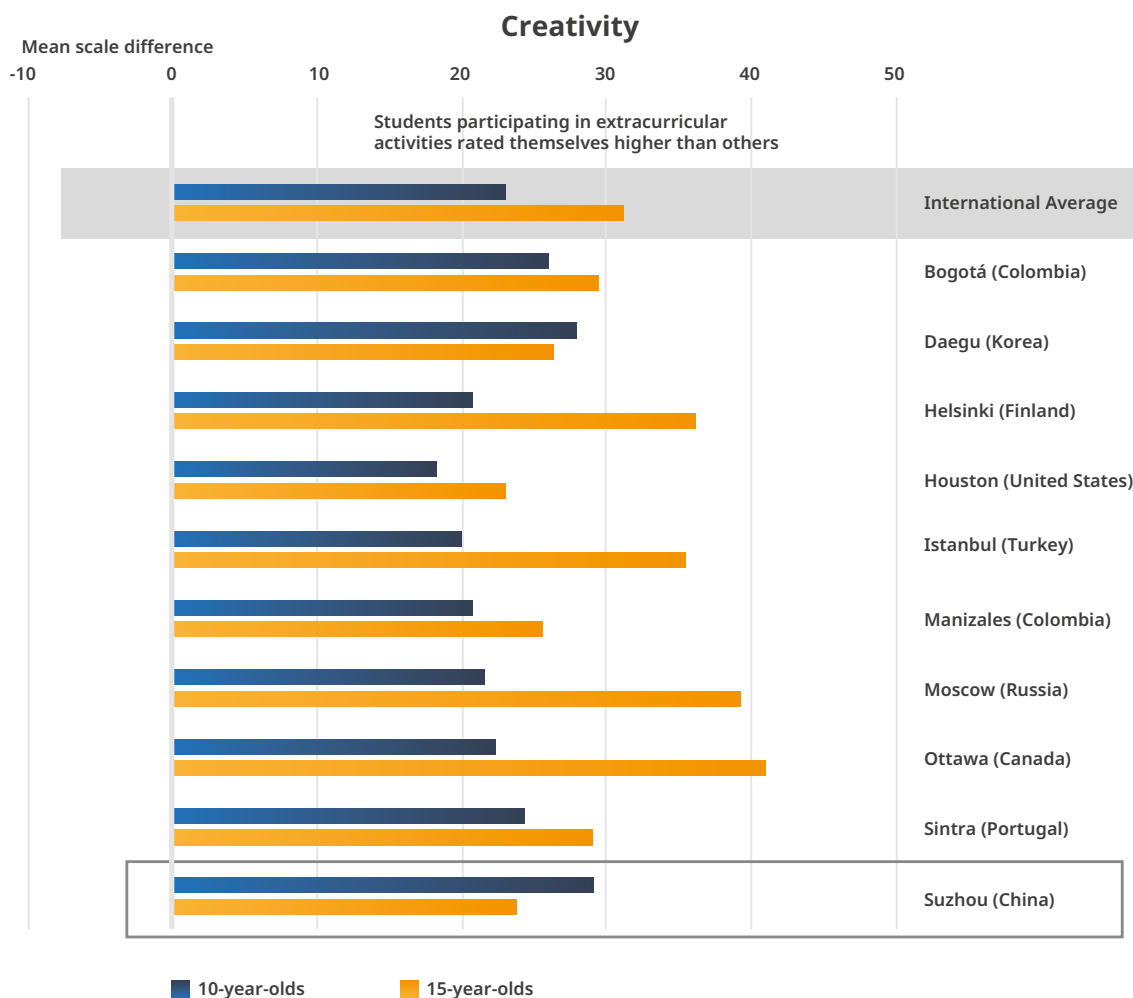


Note: Data for Sintra (Portugal) did not reach student response rate standards and are not included in the international average. Control variables include gender, socio-economic status and immigration background. Significant differences are coloured, non-significant differences are outlined.
Source: Adapted from OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>, Table A5.17.

A third area where schools could make a difference in the holistic development of their students is in organising informal activities. Extracurricular activities at school do not only have an academic focus, they usually aim to achieve a broader set of goals such as physical exercise and health; developing creativity and practice or appreciation of the arts; and encouraging volunteering and involvement with the community. Participation in extracurricular activities can also help students develop social and emotional skills (Farb and Matjasko, 2012^[38]).

SSES data show that, in Suzhou (China) as well as in all other participating cities, students who participate in after-school art activities reported higher levels of creativity (Figure 17). This holds true even after accounting for differences in socio-economic status and gender among students. In Suzhou, differences in creativity levels between students who participate in art activities and those who do not are similar across both age cohorts while these differences tend to increase as students age in other cities. In Suzhou, 65% of 10-year-old students participate in extracurricular art activities outside of school (e.g. playing a musical instrument, dancing, drawing, etc.) – a share that drops down to 44% among 15-year-old students. It is possible that sustained participation in art activities helps students build confidence in their creativity. While the nature of SSES data does not allow us to identify the direction of causality, the data suggest a strong association between art activities at age 15 and creativity.

Figure 17. How participation in art activities relates to creativity
Mean scale differences after accounting for socio-economic status and gender



Note: Data for Sintra (Portugal) did not reach student response rate standards and are not included in international averages.

Source: Adapted from OECD (2021), *Beyond Academic Learning. First Results from the Survey on Social and Emotional Skills*, OECD Publishing, Paris, <https://doi.org/10.1787/92a11084-en>, Figure 4.9.

Box 3. Key features of the OECD's Survey on Social and Emotional Skills (SSES)

Target populations and samples

The SSES took a single snapshot of two cohorts of primary and secondary school students, at ages 10 and 15. A sample of around 3,000 students was drawn for each of the two age groups in each participating city. The sample design consisted of creating an initial random sample of schools, followed by a random selection of students within sampled schools.

Ten cities participated in the first round of SSES in 2019: Bogotá (Colombia), Daegu (Korea), Helsinki (Finland), Houston (United States), Istanbul (Turkey), Manizales (Colombia), Moscow (the Russian Federation), Ottawa (Canada), Sintra (Portugal) and Suzhou (China).

In Suzhou (China), the school samples for both cohorts were drawn from the population of schools across the 10 municipalities (districts) under the jurisdiction of Suzhou. The school samples were explicitly stratified by school sector and implicitly stratified by school socio-economic status, level of education, and, for the older cohort, by type of secondary school as well.

Survey instruments

SSES assessed students' social and emotional skills directly but also obtained information from their parents, teachers and school principals.

SSES's assessment instruments are self- (student) and others' (parents and teachers) reports on assessed students' typical behaviours, thoughts and feelings. Questions/items are in the form of simple statements such as "I like learning new things" (item assessing students' curiosity) and "I stay calm even in tense situations" (item assessing stress resistance). A 5-point Likert-type agree/disagree response scale was used with answers ranging from 1 – completely disagree to 5 – completely agree. All of the 15 assessment scales used positively and negatively worded items.

These methods are used the most frequently in social and emotional skills assessments. They provide a simple and efficient way to collect information from a large number of respondents, are cost-efficient, simple to administer and tend to produce consistent results.

SSES also collected information on students' and their parents' background characteristics as well as family, school, and community learning contexts through four contextual questionnaires developed for: students, parents, teachers and school principals.

SSES data of all participating cities were complemented with information on students' school grades (except in Ottawa [Canada]) and students' scores via a short cognitive test (except in Houston [United States] and Ottawa [Canada]).

Administration mode

The students filled out the questionnaires online through desktop or laptop devices. A trained study administrator delivered the survey with school staff present. Parents, teachers and school principals also filled out questionnaires online but in some participating cities, parents could choose a paper and pencil option in case of necessity or personal preference. All instruments were provided using a centrally managed online platform.

Acknowledgements

This city note was prepared by Noémie Le Donné and Eva Feron, with valuable contributions from Ivona Feldmarova. Its development was guided by Andreas Schleicher, Dirk Van Damme and Marta Encinas-Martin. The authors thank Zhengguo Yuan, Zhongjing Huang, Huang Xingyuan Gao, Wei Sun and Zhi Liu for their inputs. The report was edited by Clara Young. The OECD thanks the Porticus foundation for the financial support provided for this report.

This publication was designed by DHA Communications.

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